

### **Abstract**

The on-time of a pulse signal is controlled by comparing a ramp signal to an input signal that is dynamically selected from two signals. A first operating mode is active when a clock signal is in a first logic state, where the pulse signal is reset. A  
5 second operating mode is initiated when the clock signal changes from the first logic state to a second logic state. During the second operating mode, the ramp signal is compared to the first signal. A third operating mode is initiated when the ramp signal exceeds the first signal during the second operating mode. During the third operating mode, the pulse  
10 signal is set and the ramp signal is compared to the second signal. The pulse signal is reset when the when the ramp signal exceeds the second signal in the third operating mode such that the on-time of the pulse signal is controlled.

